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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,898	12/14/2001	George A. Trautenberg	13202.00352	4216
27160	7590	04/21/2005	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 525 WEST MONROE STREET CHICAGO, IL 60661-3693			HOEY, BETSEY MORRISON	
			ART UNIT	PAPER NUMBER
			1724	
DATE MAILED: 04/21/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/014,898

Applicant(s)

TRAUBENBERG ET AL.

Examiner

Betsey M. Hoey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-16, 18-22, 25, 27-35, 38, 40, 42, 43 and 45-47 is/are rejected.
- 7) ☒ Claim(s) 5, 17, 23, 24, 26, 36, 37, 39, 41 and 44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/6/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7, 18, 20, 21 and 45 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 7, 18 and 45, "extraction system" is considered vague and indefinite because it is unclear what structural limitations are encompassed by this term. In claims 20 and 21, "the seal" lacks antecedent basis.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,193,939 to Kozlowski. Referring to the figures, Kozlowski teaches an apparatus for ultraviolet treatment of fluids comprising: a conduit 11, lamp 14, o-ring 28, stub 29, retaining ring 26, lamp rack 10, member 12, and bar 13; which are patentably indistinguishable from a support member, radiation source assembly, seal, first surface of the support member, second surface, frame, second support member, and third support member, respectively. The lamp rack of Kozlowski includes a power supply disposed therein (see figure 6).
5. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,367,410 to Wood. Referring to the figures, Wood discloses an apparatus for treating waste fluid comprising a channel 12, a unit 10 having UV lamps, baffles 14

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and 18, and side plates 24 and 26 connected by bottom plate 30. It is submitted that channel 12 is patentably indistinguishable from the open channel, unit 10 having UV lamps is patentably indistinguishable from the radiation source module and radiation source assemblies, baffle 14 is patentably indistinguishable from a surface that confines fluid to a closed fluid treatment zone, and the side plates and bottom plate are patentably indistinguishable from the support members, as recited in the instant claims. It is also submitted that the side plates, bottom plate, and top plate of Wood may be considered as assembling a frame, as recited in instant claim 12. Shown in figure 2, an O-ring seal is disposed on the surface of side plate (or support) 26.

6. Claims 22, 25 and 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood. Wood teaches the apparatus described above. As described above, the baffles of Wood are considered patentably indistinguishable from a confining element in the instant claims. These baffles are part of the apparatus of Wood, which is made to be inserted into existing fluid treatment channels, and therefore the baffles are not integrally molded with the channel walls, and thus they are moveable into and out of the channel as recited in instant claim 22. The figures show that the baffles and plates holding the ultraviolet lamps are attached, and thus integral, and the ultraviolet lamps of Wood have axes that are transverse the direction of fluid flow. Sealing o-rings 33 surround each lamp sleeve, and thus is between adjacent pairs of lamps. The o-rings 33 seal the lamp sleeves to channel walls 26 and 24, which act as spacers (see figure 4, for instance).

7. Claims 33-35, 38, 40, 42 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood. Wood teaches the apparatus described above. The apparatus comprises a plurality of ultraviolet lamps having specific spacing between the lamps, and a specific spacing between the lamps (see column 5) and are shown to have specific spacing between the lamps and baffles (see figure 5) that inherently is a "fraction" of the center-to-center distance between lamps.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozlowski (see above). The claims differ from Kozlowski by reciting that the seal is expandable (claim 8) or deformable (claim 9). It is submitted that although Kozlowski does not specify the specific type of o-ring used as a seal in his apparatus, elastic o-rings that are expandable and deformable are known in the art. It would have been obvious to one of ordinary skill in the art, at the time the present invention was made, to have used an expandable and deformable o-ring in the apparatus of Kozlowski, in order to maintain a tight seal and keep moisture out of the ballast.

10. Claims 16, 20, 21, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood. Wood discloses the apparatus described above. The claims differ from Wood by reciting a plurality of side-by-side radiation source modules (claim 16), an expandable seal (claims 20 and 46), and deformable seal (claims 21 and 47). It

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is submitted it would have been obvious to one of ordinary skill in the art, when making the apparatus of Wood, to have made multiple units 10 and placed them side-by-side, because using duplicate parts to enhance the effect of an apparatus is known in the art, and one of ordinary skill in the art would have been motivated to make multiple units 10 in the apparatus of Wood in order to enhance the effect of ultraviolet radiation on the fluid being treated. It is submitted that although Wood does not specify the specific type of o-ring used as a seal in his apparatus, elastic o-rings that are expandable and deformable are known in the art. It is further submitted that it would have been obvious to one of ordinary skill in the art, at the time the present invention was made, to have used an expandable and deformable o-ring in the apparatus of Wood, in order to maintain a tight seal between plate 26 and a second surface and prevent moisture from reaching the electrical power source.

11. Claims 5, 17, 23, 24, 26, 36, 37, 39, 41 and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

Claim 5 would be allowable if rewritten in independent form, including the limitations of claims 1-4, because the prior art of record fails to teach, disclose, or fairly suggest a radiation source module having a seal disposed on a surface of a third support member, in combination with the other limitations of claims 1-4.

Claims 23 and 24 would be allowable if rewritten in independent form, including the limitations of claim 22, because the prior art of record fails to teach, disclose, or fairly suggest a fluid treatment system having a confining element that is pivotally or slidably moveable between a first and second position as recited in the instant claims, in combination with the other limitations of claims 23 or 24 with claim 22.

Claim 26 would be allowable if rewritten in independent form, including the limitations of claim 22, because the prior art of record fails to teach, disclose, or fairly suggest a fluid treatment system having a radiation source element comprising a longitudinal axis disposed substantially parallel to a direction of flow in an open channel, in combination with the other limitations of claim 22.

Claims 36 and 37 would be allowable if rewritten in independent form, including the limitations of claim 33, or 33-35, respectively, because the prior art of record fails to teach, disclose, or fairly suggest a radiation source module having a support member comprising an elongate member having a longitudinal axis disposed substantially orthogonal to a concentric longitudinal axis of the radiation sources, in combination with the other limitations of claim 33 or 33-35.

Claim 39 would be allowable if rewritten in independent form, including the limitations of claims 33-35 and 38, because the prior art of record fails to teach, disclose, or fairly suggest a confining element disposed in a third support member, in combination with all of the other limitations of claims 33-35 and 38.

Claims 17 and 44 would be allowable if rewritten in independent form, including the limitations of claim 10, or claim 33, respectively, because the prior art of record fails

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to teach, disclose, or fairly suggest a radiation source module having a power supply disposed in a frame, in combination with the other limitations of claims 10 or 33.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsey Hoey whose telephone number is **(571) 272-1158**. The examiner can normally be reached on Mondays, Tuesdays, and Thursdays. The examiner's supervisor, Mr. Duane Smith, may be reached at (571) 272-1166. Any inquiry of general nature may be directed to the Group receptionist at (571) 272-0987. The centralized fax number for the Group is (703) 872-9306. The examiner Rightfax number is (571) 273-1158.

  
BETSEY MORRISON HOEY  
PRIMARY EXAMINER

April 14, 2005